

Dear Review Panel Members,

I would like to thank you in advance for your willingness to participate in the sPHENIX HCAL review scheduled for February 23rd at 1:00 pm at BNL. Below, I provide the charge for this brief but important review, which is tailored to address critical issues associated with the design, construction, and installation plans for the calorimeter in advance of pending decisions regarding the sPHENIX project.

The Review Panel is asked to assess the state of the project plan for the HCAL, a central component of the proposed sPHENIX. The Panel is asked to evaluate the readiness and plans for HCAL in the following areas:

- Performance and access requirements
- The design steps for mechanical, optical, and readout elements of the calorimeter
- R&D plans and prototyping requirements
- The plan for construction, installation, and testing of this subsystem
- Subsystem management and organization

We ask you to address and comment on the following points

- 1) *Are all the performance specifications sufficiently defined?*
- 2) *Are all the major steps in the R&D and prototyping identified and understood?*
 - a. *Is the time allocated for each step adequate?*
 - b. *Are the needed resources adequate and have they been identified?*
- 3) *Have the key milestones needed to validate the design been identified?*
- 4) *Are all the major steps for construction and installation been identified and understood?*
 - a. *Is the time allocated for each step adequate?*
 - b. *Are the needed resources adequate and have they been identified?*
 - c. *If special tooling is needed – are the needed resources identified?*
- 5) *For the HCAL subsystem – evaluate the status of the following:*
 - a. *WBS and WBS dictionary*
 - b. *Have the critical milestones been identified? (Including critical path items).*
 - c. *Cost Book – Basis of estimates*
- 6) *Have the technical and management teams been identified to carry out the needed tasks?*

Thank you in advance for you advice,
Berndt Mueller
ALD for NPP

Committee Members:

M. Begel
H. Chen
J. Dolph
T. Ludlam (chair)
H. Ma
J. Stewart
J. Tuozzolo